

Notice of Allowability

Application No.

10/672,461

Applicant(s)

JUNG ET AL.

Examiner

Art Unit

Tuan T. Nguyen

2824

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to the Election letter filed on 8/1/05.
2. ☒ The allowed claim(s) is/are 1-9.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some* c) ☐ None of the:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.


Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date 7/12/04
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____.
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☒ Other search history printout.


10/3/05

DETAILED ACTION

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Information Disclosure Statement

2. The information disclosure statement (IDS) submitted on 7/12/04 was filed after the mailing date of the present application on 9/26/03. The submission is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the examiner.

Election/Restrictions

3. Applicant's election without traverse of claims 1-9 in the reply filed on 8/1/05 is acknowledged.
4. This application is in condition for allowance except for the presence of claims 10-12 to an invention non-elected without traverse. Accordingly, claims 10-12 been cancelled.
5. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

EXAMINER'S AMENDMENT

6. The application has been amended as follows:

Cancel claims **10-12**.

In the Abstract, line 1, change "**Provided are a**" to – **A** –

Allowable Subject Matter

7. Claims **1-9** are allowed.

8. The following is an examiner's statement of reasons for allowance:

The prior art of record fail to disclose a synchronous semiconductor device comprising a first data bus which is used to transmit data in a first bit configuration mode and is not used to transmit data in a configuration mode; and mode other than the first bit configuration a second data bus which is used to transmit data in the first bit configuration mode and a second configuration mode, is not used to transmit data in a configuration mode other than the first bit configuration mode and the second configuration mode, and is arranged to be parallel with the first data bus, wherein the first data bus and the second data bus are arranged alternately as recited in claim 1.

Claims **2-6** are therefore allowed because of their dependency on claim 1.

The prior art of record fail to disclose a synchronous semiconductor device which supports both a single data rate mode and a double data rate mode, the synchronous semiconductor device comprising a first data bus which is used to transmit data in the double data rate mode and is not used to transmit data in the single data rate mode; and a second data bus which is used to transmit data in the single data rate mode and in the double data rate mode and is arranged to be

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parallel with the first data bus, wherein the first data bus and the second data bus are arranged alternately as recited in claim 7.

Claims 8-9 are therefore allowed because of their dependency on claim 7.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- a. Ooishi et al. (US 6,522,599) disclose an operable SDRAM switching between single data rate mode and double data rate mode.
- b. Duh et al. (US 6,778,454) discloses a FIFO memory devices that support all combination of DDR and SDR read and write modes.
- c. Maeda (US 6,574,163) discloses a semiconductor memory device with single clock signal line.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tuan T. Nguyen whose telephone number is (571) 272-1880.

The examiner can normally be reached on Monday - Friday, 7:00 AM - 3:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Elms can be reached on (571) 272-1869. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Tuan T. Nguyen
Primary Examiner
Art Unit 2824

October 3, 2005